San Joaquin County
Environmental Health Department
600 East Main Street
Stockton, California 95202-3029

Website: www.sjgov.org/ehd
Phone: (209) 468-3420
Fax: (209) 464-0138

DIRECTOR
Donna Heran, REHS

PROGRAM COORDINATORS
Robert McClellon. REHS
Jeff Carruesco, REHS, RDI
Kasey Foley, REHS

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Messrs. Robert Trommer, CHG, and Kirk Larson, PG
State Water Resources Control Board
Division of Financial Assistance
1001 I Street
Sacramento CA 95814

Subject: **March 2010 Draft Five-Year Review Recommendations, Various Sites**

San Joaquin County Environmental Health Department (EHD) has received and reviewed the draft annual review five-year review update letter for various sites referenced below and comments as follows below

2360 East Road, Tracy, CA, Claim Number 3484: You have recommended site closure consideration, with which the EHD is in agreement. The site closure process is at an advanced stage, the EHD is awaiting only certification that all investigation-derived wastes have been properly disposed The EHD expects this site to be closed within weeks.

1876 Country Club Boulevard, Stockton, CA, Claim Number 1026: You have recommended site closure consideration this year after recommending more aggressive site remediation the two previous years The site is in active remediation by groundwater extraction (GWE); however, other than the analytical results for the extraction well samples, the remediation status and effectiveness has not been reported recently The EHD will direct submittal of an evaluation of the remedial effectiveness. The EHD notes that the concentrations reported represent the effects of an active remediation system and anticipates that rebound testing will be the next corrective action. With favorable results, the EHD anticipates site closure within a year

2315 N El Dorado Street, Stockton, CA, Claim Number 417: You concurred with the EHD directive to assess alternative remedial technologies. The consultant has recommended pilot testing of *insitu* air sparging (IAS) in a recent feasibility study The EHD will approve this recommendation.

248 E. Park Street, Stockton, CA, Claim Number 1695: You concurred with the EHD directive to conduct a dual phase extraction (DPE) pilot test; a work plan for such is due June 7, 2010

517 E. Fremont Street, Stockton, CA, Claim Number 14349: You concurred with the EHD directive to submit a work plan to conduct a soil vapor extraction (SVE) pilot test. The results from a recent DPE pilot test were interpreted to show DPE would not be effective. By letter dated March 9, 2010, the EHD approved an SVE/IAS pilot test. The sparge wells are scheduled for installation in May 2010.

15615 Seventh Street, Lathrup, CA, Claim Number 367: You concur with an EHD approval by letter dated January 8, 2010, conducting an oxygen injection pilot test. The EHD approved collecting groundwater parameters needed to show that low oxygen concentrations are a limiting factor controlling natural attenuation and that injection of oxygen may be effective for enhancing natural attenuation A feasibility study is pending.

11530 Eight Mile Road, Stockton, CA, Claim Number 3668: You concurred with the EHD directive to conduct ozone sparging pilot test. At this time there is an access problem for installing the sparge wells at the proposed locations are on a levee and the Reclamation District has not yet granted access.

814 Charter Way, Stockton, CA, Claim Number 6793. You recommend that the EHD consider site closure; at the time of preparation of this letter the monitoring wells on the site are being destroyed. As soon as proper disposal of investigation-derived wastes has been received, a closure letter will be issued

5491 F Street, Banta, CA, Claim Number 889: You recommend that the EHD consider site closure. A monitoring well installed to further investigate high concentrations of total petroleum hydrocarbons quantified as motor oil (TPHmo) in a sand unit potentially contributing to a nearby domestic well has been installed and monitored twice; the results of the second monitoring event are still pending. The SVE system and ozone injection system have been offline for several months and rebound testing is in progress. Assuming favorable results from the groundwater monitoring and rebound monitoring, the EHD will most likely start the closure process.

620 W. Charter Way, Stockton, CA, Claim Number 4954: In 2008 and 2009, you recommended implementation or enhancement of groundwater remediation in the deeper zones on the site, generally deeper than 50 feet below surface grade (bsg); to date remediation of deeper groundwater has not been implemented. This year you recommend consideration of the site for closure.

In response to free product encountered in shallow monitoring well MW15-50 in January 2009 and high concentrations of total petroleum hydrocarbons quantified as gasoline

(TPHg) and benzene, toluene, ethylbenzene and total xylenes (BTEX) in MW16-90, the EHD directed preparation of a feasibility study to remediate the intensely impacted groundwater. The RP's consultant proposed conducting a cone penetrometer testing (CPT) investigation first to better characterize the hydrogeological setting and contaminant distribution before preparing a remedial corrective action plan, which the EHD has approved. As free product has been encountered in the recent past, groundwater is intensely impacted locally, and the plume has migrated onto adjacent site(s), the EHD believes that the people of California, and the adjacent property owners, will benefit from remediation of the core of this plume to accelerate its return to background conditions or water quality objectives.

1717 W. Charter Way, Stockton, CA, Claim Number 4423. In 2008, you concurred with additional site investigation and in 2009 you recommended reinitiation of the site remediation system and consideration of a more aggressive remedial technology; this year you recommend site closure consideration, although the responsible party has not undertaken any remedial activity since cessation of the SVE operation. The recent CPT investigation developed data that in the opinion of the EHD connects the site source area to impacted groundwater near the north margin of the site, which would greatly increase the modeled area of the plume of impacted groundwater At this time, the EHD is not certain that monitoring well MW-4 is a reliable down-gradient monitoring point, which would mean the plume extent in the down-gradient direction may not be accurately known.

While contaminant concentrations in the core area wells have declined since monitoring began in 1999, they have varied in a fairly steady range for the last five years that does not show an obvious decline on the tables. With a mass that has not been estimated, an uncertain lateral extent and a degradation rate that has also not been estimated, the EHD cannot be reasonably sure when site conditions will return to background conditions or achieve water quality objectives, or certify that it will do so in a reasonable time frame. The EHD will give the responsible party an opportunity to address these concerns.

Questions or comments should be directed to Nuel Henderson at (209) 468-3436 or to the appropriate case worker as indicated on GeoTracker

Sincerely,

Nuel Henderson, PG
Engineering Geologist